

GGCAGAACGGCATAGGAAACGGACCGTGTGGTATGCTCCGCGATGTCGAGGCAGCTGGT
 GTACCGAGGAGGGACTTCAAAACATGACCTGCATTACAGAAGGGAAAGCGGAGGTTAACACCACA
 CTCGAGGAGTTGTTACTCTATTTATTTCTTAATAAATCTATGCATATTGACTTTGGATGG
 TCAATCCACATATGTAACATTAAACAAAGTTATGTCGCTCTGTTGGACACTCTCTA
 TGATGATGAAAGAACGAGCTTAGGTCCATTGGAGCATAACTGAGTTGGAAAGTTCATGGAA
 GGACCCCTCATCGACGGCTGTACTGGGACTCGTGGTATGGCACCAACAGCTGTACAGTGTGA
 AGAACAGCAGCCGCATCTACTACGAGAACGTTCTCGGCATCCCCAGAGTGCAGCAACTGCG
 AGTCCGAAACAAACACTTGCAAGGTCTACCCAGCTTCCAGTCCCTGGTCAGCGACTGCTACAGC
 AAGTACACAGTGGAAAACGAAGACTCTCTGATTTGGCCTCAAACGCAATCCAGAATGGACGC
 ACACGCCTCTTCCGACTGCCCATGGCACTGGGGTTTGTGGGTATACCGAGATGGAGG
 ATATATAGTCACGTTATCAAATCAAATCTGAAACCAAAGCCAAATTGTTGACCTTCGACTG
 AACAACTGGATTAGCAGAGGCACCAGGGCTTTTATTGATTCTCCCTGTACAATGCTAATG
 TCAACCTGTTGCATCATCAGGCTGCTGGCAGAGTCCCTGCACGGGTGGCTCCTCACCTC
 CTGGCAGTTCTACTCTGTGAAGGCTCAGATACGTCCTACTACGACTACTTCATTGCCTCC
 TGTGAAGTCATATTTGTATTTCTTTGCTTCTATAATACAAGAACTGAGGAAAGTGAACG
 AGTTAAGTCTGCCTATTCAGAAGTGTCTGGAACCTGGCTGGAGATGCTGCTCCTGCTGCTG
 TTTTCGCCGTGTTCTATGCATACTGTAACATGCAGAGCTTCTCTGCTTGGACAGCTG
 CTGAAAAACACTGACAGCTATCCCGACTTTACTCCCTGCATACTGGCACATTACTATAACA
 ACGTAATTGCTATCACTATCTCTTGATGGATAAAAGATATTCAAGTTCATAAAGCTTCAATGA
 GACAATGTCGAGCTGTCAACACTCTCCCGCTGCATGAAGGACATCGTGGGGTTGCCATC
 ATGTTCTTCATCATCTCTGCTTATGCCAGTTGGGATTCTGGTTTGGGTACAGGTTG
 ATGATTTCAACTTTCAAATTCCATATTGACAAATTGCAATTGTCCTCGGGACTTTAA
 CTTTGCTGGCATCCAGCAGGCCACTGGATCTGGGGCCATCTACTCATCAGTTCATCTC
 TTTGTGTTCTTGCTCTGAACATGTTCTGGCAATAATTAAATGACACCTATTCTGAAGTTA
 AGGCTGATTATTCAATAGGCAGAAGACCAGATTGAACTGGTAAATAATTCAAAGAGTTG
 CTTTAATGTTCTCGAGAAACTCAGACTCAAGAAAGCTCAAGCTAAAGAAGAAAAGAAAATGCAA
 ACCACTGACTTGGGCCAGAGAGCCAGAAGAGAAAGGCTTGATGAAAGTGAGATCCAAGAGGCAG
 AGCAGATGAAAGATGGAAGGAAAGGCTGAAAAAAAGTATTCTACAGAAATTCAAGACGA
 TTATCAGCCTGTCACTCAGCAAGAATTCCGAGAGCTCTTTATACGCGGTGGAGCTGAGAAG
 GAATTACACTATGTCAGTTAAAACCTGAACCAACTGATGAGAAAGCTGCACTAGCAGGCTGACA
 AGTGGAGTCATTTATAAGAAAAGGCAACCGAAGAATTCTAGTATGAAGATTTTCCCTC
 TCAATTTCTTCAGTAATGCAAAAGAAAACCAAAAGTAACCAGAACAGTGTGTTTATTCAAA
 GTTCTTGAAAGTAAAAGAGTAAAACCTTGTCTTGCTAACAGCCGTGTGCAGTAAACAAAT
 GAAGGAGCCTGCGTGTGTTCTTAAGTGTGGAGAGGATCTGCGGGATGTGGAACAGCTTCCTG
 CCTACTGGAACCACAAACAAAGCACACAATGGGACTCTGAGTCAGTGCCTGACAAAGTGAACGCAAG
 TACAGCCAAGCACACATGGTAACCTGTCAGGAAACACAAGCAGCTTATGGCGTCAACTTCAAG
 GAACATATTTATATGGATTGAAAGAGTCTGTTGCTGATAAGAACTTCAAGAAGTCTAAGC
 TTGGCTTGATTCTCTGTATTCTTATATTCCCTAAGCACCAGAACGATCCTCCTGGG
 CATTCCCTAGGAAAGATAAAACTCTGTAAGCAAAAAAAAGAAAAAAAGAAAAAAAGAAAAA (SEQ ID
 NO : 1)

FIGURE 1

MSEATWWYRGGTSKHDLYRREAEVNTTLEELLLYFIFLINLCILTFGMVNPHMYYLNKVMSSL
FVDTSLPDERSSFRSIRSIITEFWKFMGPLIDGLYWDSWYGTQQLYSVKNSSRIYYENVLLGI
PRVRQLRVRNNTCKVYPAFQSLVSDCYSKYTVEVEDFSDFGLKRNPEWHTPSSRTAPWHWGFV
GVYRDGGYIVTLSKSSETKAKFVDLRLNNWISRGTRAVFIDFSLYNANVNLFCIIRLLAEFPA
TGGLLTSWFYSVKLRYVYYDYFIASCEVIFCIFLFVFIIQELRKVNEFKSAYFRSVWNWLE
MLLLLLCFLAVSFYAYCNMQSFLLGQLLKNTDSYPDFYFLAYWHIYYNNVIAITIFFAWIKIF
KFISFNETMSQLSSTLSRCMKDIVGFAIMFFIIIFSAYAQLGFLVFGSQVDDFSTFQNSIFAQFR
IVLGDFNFAGIQQANWILGPIYFITFIFFVFFVLLNMFLAIINDTYSEVKADYSIGRRPDFELG
KIIQKSCFNVLEKRLKKAQAKEEKKMQTTDLAQRARREGFDESEIQEAEQMKRWERLEKKYY
STEIQDDYQPVTQQEFRELFYAVELEKELHYVSLKLNQLMRKLH (SEQ ID NO:2)

FIGURE 2

underlined = deleted in targeting construct

BOLD = sequence flanking Neo insert in targeting construct

GGCAGAACGGCATAGGAAACGGACCGTGTGGTATGCTCCCGATGTCAGGGCGACTT
 GGTGGTACCGAGGGAGGACTTCAAAACATGACCTGATTACAGAAGGGAAAGCGGAGGTTA
 ACACCAACACTCGAGGAGTTGTTACTCTATTCTTAAATAAATCTATGCATATTGA
CTTTGGGATGGTCAATCCACATATGTACTATTAAACAAAGTTATGCGTCTGTGTTG
TGGACACTCTCACCTGATGATGAAAGAAGCAGCTTAGGTCATTGGAGCATAACTG
AGTTTGAAGTTCATGGAAGGACCCCTATCGACGGCTTGACTGGGACTCGTGGTATG
GCACCAAACAGCTGTACAGTGTGAAGAACAGCAGCCGATCTACTACGAGAACGTTCTC
TCGGCATCCCCAGAGTGCAGCACTGCGAGTCCGAAACAACACTTGCAGGTCTACCCAG
CTTCCAGTCCCTGGTCAGCGACTGCTACAGCAAGTACACAGTGGAAAACGAAGACTTCT
CTGATTGGCCTCAAACGCAATCCAGAATGGACGCACACGCCCTTCCGCACGTGCC
CATGGCACTGGGGTTGTTGGCTATACCGAGATGGAGGATATAGTCACGTTATCAA
AATCAAATCTGAAACCAAAGCAAATTGTTGACCTCGACTGAACAACTGGATTAGCA
GAGGCACCAAGGGCTTTTATTGATTTCTCCCTGACAATGTAATGTCACCTGTTT
GCATCATCAGGCTGCTGGCAGAGTCTCTGCGACGGTGGCTCCTCACCTGGCAGT
TCTACTCTGTGAAGCTCTCAGATCGTCTCTACTACGACTACTTCATTGCCTCTGTG
AAGTCATATTGTTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT
AGTTAAGTCTGCCTATTCAAGAAGTGTCTGGAACTGGCTGGAGATGCTGCTGCTG
TCTGTTTCTCGCCGTGTTCTATGCACTGTAACATGCAAGAGCTTCTTGCTGTTG
GACAGCTGCTGAAAAACACTGACAGCTATCCGACTTTACTTCCCTGCATACTGGCACA
TTTACTATAACAACGTAATTGCTATCACTATCTTCTTGCATGGATAAAGATAATTCAAGT
TCATAAGCTCAATGAGACATGTCGAGCTGTCATCAACACTCTCCCGCTGCATGAAGG
ACATCGTGGGTTGCCATCATGTTCTCATCTCTGCTTATGCCAGTTGGGAT
TTCTGGTTTTGGGTCACAGGTTGATGATTTCAACTTTCAAAATTCCATATTGCAC
AATTTCGAATTGTCCTGGGACTTTAACCTTGCTGGCATCCAGCAGGCCACTGGATCT
TGGGCCCATCTACTCATCACGTTCATCTTGTGTTCTTGCTCCTGAACATGT
TCTTGGCAATAATTAAATGACACCTATTCTGAAGTTAGGCTGATTATTCAATAGGCAGAA
GACCAGATTGAACTGGTAAAATAATTCAAAAGAGTTGCTTAAATGTTCTCGAGAAC
TCAGACTCAAGAAAGCTCAAGCTAAAGAAGAAAAGAAATGCAAACCACTGACTGGCC
AGAGAGCCAGAACAGAAGGCTTGATGAAAGTGGAGATCCAAGAGGCAGAGCAGATGAAA
GATGGAAGGAAAGGCTGAAAAAAAGTATTATTCTACAGAAATTCAAGACGATTATCAGC
CTGTCACTCAGAACGAAATTCCGAGAGCTTTTATACGCGTGGAGCTTGAGAAGGAAT
TACACTATGTCAAGTTAAAACGAAACACTGATGAGAAAGCTGCACTAGCAGGCTGACA
AGTGGAGTCATTATAAGAAAAGGCAACCGAAGAATTTCATTCACTGATGAGATTGTTT
CCTCTCAATTCTTCAGTAATGCAAAGAAAACAAAAGTAACCAGAAGTGTCTTCTT
ATTTCAAAGTTCTTGAAAGTAAAAGAGTAAAACCTCTGCTTGTCTAACAGCCGTGCTG
CAGTAAAACATGAAGGAGCCTCGTGTTCCTAAGTGTGGAGAGGATCTGGAAATGT
GGAAACAGCTTCCTGCCTACTGGAACCAACAAACGACACACAATGGGACTCTGAGTG
CCTGACAAAGTGAACGCAAGTACAGCAAGCAGCACACATGGTGAACGTGTCAGGGAAACACAAG
CACTTATGGCGTCAACTTCAAGGAACATATTATGGATTTGAAGAGTCTTGT
GCTGATAAGAACCTCAAGAAGTCTAAGCTGGCTTGATTCTCTGTATTCTTATATTC
CTCAAGCACCAGAACACGATCCTCTGGCATTCCCTAGGGAAAGATAAAACTCTGAA
AGCAAAAAAAAGAAAAAAAGAAAAAA

FIGURE 3

